Jane Dee Hull
Governor

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

3033 North Central Avenue • Phoenix, Arizona 85012-2809
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Jacqueline E. Schafer
Director

APP Field Copy

July 1, 2002

U.S. Army Intelligence Center & Fort Huachuca
Directorate of Installation Support
ATTN: ATZS-ISB (Tom Runyon)
Fort Huachuca, Arizona 85613

Re: Fort Huachuca Wastewater Treatment Plant & Recharge Facility
Aquifer Protection Permit # 100840
LTF ID: 21141

Dear Mr. Runyon:

Enclosed is a signed Aquifer Protection Permit with Executive Summary for the above referenced facility. The permit conditions shall apply from June 17, 2002 which is the date of the Water Quality Division Director's signature, and shall be valid for the life of the facility. Thank you for your cooperation in protecting the water quality of the State of Arizona.

If you have any questions regarding this permit or the facility, please feel free to contact me at 602-207-4503.

Sincerely,

Lee Sobchak
Water Permits Section
Water Quality Division

cc: Robert Casey, Water Quality Compliance Section
Don Shroyer, Water Quality Compliance Section
Lynne Dekarske, Water Permits Section
Asif Majeed, Manager, Wastewater Recharge & Reuse Unit (letter only)
John Eyre, SRO, Compliance Program Unit

MWR02:0547

EXECUTIVE SUMMARY
AQUIFER PROTECTION PERMIT NO. 100840

Facility Name:

Ft. Huachuca Wastewater Treatment Plant and Recharge Facility

Facility Location:

The facility is located on Brianard Road, Fort Hauchuca, Cochise County, Arizona, over groundwater of the Salt River Valley basin in the Upper San Pedro Basin in Township 21S, Range 20E, Section 28, W½ SE¼, SW¼, - Gila and Salt River Base Line and Meridian.

Regulatory Status

This is an existing facility. A notice of disposal (NOD) was submitted on January 18, 1985. The Aquifer Protection Permit (APP) application was submitted on October 2, 2000.

Facility Description:

The permittee is authorized to operate a wastewater treatment plant and underground storage and recovery project for 2.0 million gallon per day of reclaimed water from the Ft. Huachuca wastewater treatment plant (WWTP). A maximum of 1000 acre feet per year shall be recharged with the remaining reclamed water to be used for irrigation under a general or individual reclaimed water permit. The WWTP shall consist of a new oxidation ditch designed for denitrification followed by filtration and ultra violet disinfection. Backup chlorination may be used for emergency use only. Effluent shall be recharged using existing basins on site and construction of new basins for a total of eight. The first basin (E-1) shall be used first before any of the other basins are used. The existing WWTP using trickling filter treatment technology shall be used until the new oxidation ditch is completed. The existing trickling filter will remain on site to be used for emergency purposes. There are sludge drying beds that shall be lined with a liner that shall attain a permeability of 1×10^{-7} or slower. Sludge will be disposed of off site according to state and federal regulations.

Best Available Demonstrated Control Technology (BADCT):

The facility will denitrify the effluent to below 10.0 mg/l for total nitrogen and will disinfect using ultra violet technology. The facility will transport wastewater for reuse on site and to a series of recharge basins. This treatment plant technology, and water conservation through reuse is considered to meet BADCT requirements.

Monitoring Requirements:

STATE OF ARIZONA
AQUIFER PROTECTION PERMIT NO. P-100840
LTF # 21141 Place ID # 1130

1.0 AUTHORIZATION

In compliance with the provisions of Arizona Revised Statutes (A.R.S.) Title 49, Chapter 2, Articles 1, 2 and 3, Arizona Administrative Code (A.A.C.) Title 18, Chapter 9, Articles 1 and 2, A. A. C. Title 18, Chapter 11, Article 4 and amendments thereto, and the conditions set forth in this permit, Fort Huachuca is hereby authorized to operate the Wastewater Treatment Plant and Recharge Facilty located at Brianard Road Fort Huachuca, Cochise County Arizona, over groundwater of the, Salt River Valley basin in the Upper San Pedro Basin in Township 21S, Range 20E, Section 28, W½, SE¼, SW¼ of the Gila and Salt River Base Line and Meridian.

This permit becomes effective on the date of the Water Quality Division Director's signature and shall be valid for the life of the facility (operational, closure, and post-closure periods), provided that the facility is constructed, operated, and maintained:

1. following all the conditions of this permit including the design and operational information documented or referenced below, and
2. such that Aquifer Water Quality Standards are not violated at the applicable point(s) of compliance set forth below.

1.1 PERMITTEE INFORMATION

Facility Name: Ft. Huachuca Wastewater Treatment Plant and Recharge Facility

Permittee:	**Mailing Address:**	**Facility's Street Address:**
U.S. Army, Fort Huachuca	U.S. Army Intelligence Center & Ft. Huachuca ATTN: ATZS-IS (ENRD) Building 22526 Butler Road Fort Huachuca, Arizona 85613-6000	U.S. Army Intelligence Center & Ft. Huachuca, Wastewater Treatment Plant No 2, Building 90713 Brianard Road Fort Huachuca, Arizona 85613-6000

Facility Contact: Tom Runyon

Emergency Telephone Number: 520-533-1473

Latitude: 31°34' 12" **Longitude:** 110°18' 52"

Legal Description: Township 21S, Range 20E, Section 28, W½, SE¼, SW¼ of the Gila and Salt River Base Line and Meridian

1.2 AUTHORIZING SIGNATURE

Karen L. Smith, Director
Water Quality Division
Arizona Department of Environmental Quality
Signed this 17th day of June, 2002

Point of Compliance:

The point of compliance is 50 feet downgradient of the WWTP as shown in Section 2.4 of the permit.

POC #1 and #2

Compliance with Aquifer Water Quality Standards (AWQS):

The facility produces secondary treated effluent with nitrogen removal and ultra violet disinfection. Due to the materials used for construction of the facility, the depth to groundwater greater than 130 feet and the quality of water being recharged, it is anticipated that AWQS will be met at the point of compliance.

Storm/Surface Water Considerations:

There are no storm/surface water considerations required for this facility

Technical Capability:

The permittee has contracted work for the design and construction of the facility to a company that is experienced in WWTP design and construction. The WWTP will be operated by a certified wastewater facility operator.

Financial Capability:

The permittee has provided the financial information required pursuant to A.A.C. R18-9-A203

Zoning Requirements:

The facility satisfies the necessary zoning requirements.

2.0 SPECIFIC CONDITIONS [A.R.S. §§ 49-203(4), 49-241(A)]

2.1 Facility / Site Description [A.R.S. § 49-243(K)(8)]

The permittee is authorized to operate a wastewater treatment plant and underground storage and recovery project for 2.0 million gallon per day of reclaimed water from the Ft. Huachuca wastewater treatment plant (WWTP). A maximum of 1000 acre feet per year shall be recharged with the remaining reclaimed water to be used for irrigation under a general or individual reclaimed permit. The WWTP shall consist of a new oxidation ditch designed for denitrification followed by filtration and ultra violet disinfection. Chlorine may be used to prevent clogging of the tertiary sand filter followed by dechlorination. Effluent shall be recharged using four existing basins that have been regraded and construction of four new basins for a total of eight. The first basin (E-1) shall not be dry more than forty-five days in any quarter. The existing WWTP using trickling filter treatment technology shall be used until the new oxidation ditch is completed. There are sludge drying beds that shall be lined with a liner that shall attain a permeability of 1×10^{-7} or slower. Sludge will be disposed of off site according to state and federal regulations..

Q2 OK 1800 d/yr

The permittee shall adhere to all requirements of the Operations and Maintenance (O & M) manual.

Read O&M Manual

The existing facility is classified as generating class B reclaimed water according to Arizona Administrative Code R18-11-306. The new facility shall be classified as generating class B+ reclaimed water according to R18-11-305 when the WWTP is generating denitrified effluent.

The site includes the following permitted discharging facilities:

Facility	Latitude	Longitude
WWTP	31° 34 ' 57"	110° 18' 47"
ER Basin #1	31° 34 ' 48"	110° 18' 36"

2.2 Best Available Demonstrated Control Technology [A.R.S. § 49-243(B) and A.A.C. R18-9-A202(A)(5)]

The modified WWTP is designed to meet the treatment performance criteria for new facilities as specified in Arizona Administrative Code R18-9-B204.

2.2.1 Engineering Design

The new construction shall conform to the final sealed design report dated December 2000 submitted with the Aquifer Protection Permit for this facility

2.2.2. Site-specific Characteristics

Not required

Was this done?

2.2.3 Pre-Operational Requirements

Within 60 days of the signature date of the permit, the operator shall inspect the facility to verify that all aspects of the recharge processes function as designed. The permittee shall provide written certification to ADEQ Water Permits compliance, that inspection of all components was performed and indicate the results of inspection.

2.2.4 Operational Requirements

(1) A copy of Operations and Maintenance Manual shall be maintained at the plant site at all times and shall be available upon request during inspections by ADEQ personnel.

(2) The pollution control structures shall be inspected for items listed in Section 4.0, TABLE III.

(3) If any damage of pollution control structures is identified during inspection, proper repair procedures shall be performed. All repair procedures and material(s) used shall be documented in the Self-Monitoring Report Form (SMRF) submitted quarterly to ADEQ Water Quality Enforcement.

2.3 Discharge Limitations [A.R.S. §§ 49-201(14), 49-243 and A.A.C. R18-9-A205(B)]

The permittee is authorized to discharge up to 2.0 million gallons per day into recharge basins or to a permitted reuse site.

2.4 Point(s) of Compliance (P.O.C.) [A.R.S. § 49-244]

1. The Point of Compliance is located south and west of the recharge basins and established by the following monitoring locations:

P.O.C. locations	Latitude	Longitude
POC #1	31°34 ' 50"N	110° 18 ' 45" W
POC # 2	31°35 ' 13"N	110° 18 ' 49 " W

Monitoring requirements for P.O.C is listed in Section 4.0, TABLE I

The Director may designate additional points of compliance if information on groundwater gradients or groundwater usage indicates the need.

2. Ambient Groundwater monitoring

Not Required

2.5 Monitoring Requirements [A.R.S. § 49-243(K)(1), A.A.C. R18-9-A206(A)]

All monitoring required in this permit shall continue for the duration of the permit, regardless of the status of the facility. All sampling, preservation and holding times shall be in accordance with currently accepted standards of professional practice. Trip blanks, equipment blanks and duplicate samples shall also be obtained, and chain of custody procedures shall be followed, in accordance with currently accepted standards of professional practice. The permittee shall consult the most recent version of the ADEQ Quality Assurance Project Plan (QAPP) and EPA 40 CFR PART 136 for guidance in this regard. Copies of laboratory analyses and chain of custody forms shall be maintained at the permitted facility. Upon request these documents shall be made immediately available for review by ADEQ personnel.

2.5.1 Discharge Monitoring

2.5.3 Groundwater Monitoring and Sampling Protocols

Static water levels shall be measured and recorded prior to sampling. Wells shall be purged of at least three borehole volumes (as calculated using the static water level) or until indicator parameters (pH, temperature, conductivity) are stable, whichever represents the greater volume. If evacuation results in the well going dry, the well shall be allowed to recover to 80% of the original borehole volume, or for 24 hours, whichever is shorter, prior to sampling. If after 24 hours there is not sufficient water for sampling, the well shall be recorded as "dry" for the monitoring event. An explanation for reduced pumping volumes, a record of the volume pumped, and modified sampling procedures shall be reported and submitted with the Self- Monitoring Report Form (SMRF).

2.5.4 Surface Water Monitoring and Sampling Protocols

Not Required

2.5.5 Analytical Methodology

All samples collected for compliance monitoring shall be analyzed using Arizona state approved methods. If no state approved method exists, then any appropriate EPA approved method shall be used. Regardless of the method used, the detection limits must be sufficient to determine compliance with the regulatory limits of the parameters specified in this permit. Analyses shall be performed by a laboratory licensed by the Arizona Department of Health Services, Office of Laboratory Licensure and Certification. For results to be considered valid, all analytical work shall meet quality control standards specified in the approved methods. A list of Arizona state certified laboratories can be obtained at the address below:

Arizona Department of Health Services
Office of Laboratory Licensure and Certification
1740 W. Adams Street, Room 203 North
Phoenix, AZ 85007
Phone: (602) 364-0720

2.5.6 Installation and Maintenance of Monitoring Equipment

Monitoring equipment required by this permit shall be installed and maintained so that representative wastewater, groundwater, soil, water, or sludge samples can be collected. Should new groundwater wells be determined to be necessary, the construction details shall be submitted to the ADEQ Water Permits Section for approval.

2.6 Contingency Plan Requirements
[A.R.S. § 49-243(K)(3), (K)(7) and A.A.C. R18-9-A204 and R18-9-A205]

2.6.1 General Contingency Plan Considerations

At least one copy of the approved contingency and emergency response plan(s) shall be maintained at the location where day-to-day decisions regarding the operation of the facility are made. The facility permittee shall be aware of and follow the contingency and emergency plans.

Some contingency actions involve verification sampling. Verification sampling shall consist of the first followup sample collected from a location that previously indicated a violation or that an AL has been exceeded. Collection and analysis of the verification sample shall use the same protocols and test methods to analyze for the pollutant or pollutants that exceeded an AL or violated an AQL.

2.6.2 Exceeding of Alert Levels/Performance Levels

2.6.2 Exceeding of Performance Levels

1. If the operational performance level set in Section 4.0, TABLE III has been exceeded the permittee shall:

   a. Notify ADEQ Water Quality Compliance, within five (5) days of becoming aware of a violation of any permit condition.

   b. Submit a written report within 30 days after becoming aware of the violation of a permit condition. The report shall document all of the following:

      1. A description of the violation and its cause.

      2. The period of violation, including exact date(s) and time(s), if known, and the anticipated time period during which the violation is expected to continue.

      3. Any action taken or planned to mitigate the effects of the violation, or to eliminate or prevent recurrence of the violation.

      4. Any monitoring activity or other information which indicates that any pollutants would be reasonable expected to cause a violation of an Aquifer Water Quality Standard.

      5. Any malfunction or failure of pollution control devices or other equipment or process.

2. The facility is no longer on alert status once the operational indicator no longer indicates that a performance level is being exceeded. The permittee shall, however, complete all tasks necessary to return the facility to its normal operating conditions.

2.6.2.2 Exceeding of Alert Levels Set for Discharge Monitoring

1. If an AL set in Section 4.0, TABLE I has been exceeded, the permittee shall conduct verification sampling within 24 hours of becoming aware of the alert status.

2. If the verification sampling confirms that the AL has been exceeded, the permittee shall immediately investigate to determine the cause of the AL being exceeded. The investigation shall include the following:

   a. Inspection, testing, and assessment of the current condition of all treatment or pollutant discharge control systems that may have contributed to the AL being exceeded.

   b. Review of recent process logs, reports, and other operational control information to identify any unusual occurrences;

3. Within thirty (30) days after confirmation of an AL being exceeded, the permittee shall submit the laboratory results to the ADEQ Water Quality Compliance Section, Data Unit, along with a summary of the findings of the investigation, the cause of the AL being exceeded, and actions taken to resolve the problem.

4. Upon review of the submitted report, the Department may require additional monitoring including, increased frequency of monitoring, amendments to permit

conditions or other actions.

2.6.2.3. Exceeding of Alert Levels in Groundwater Monitoring

2.6.2.3.1. Alert Levels for Indicator Parameters

Not Applicable.

Alert Levels for Pollutants with Numeric Aquifer Water Quality Standards

1. If an AL for a pollutant set in Section 4.0, TABLE II has been exceeded, the permittee shall conduct verification sampling within 5 days of becoming aware of an AL being exceeded.

2. If verification sampling confirms the AL being exceeded, the permittee shall increase the frequency of monitoring to weekly. Any parameter r that has daily monitoring shall remain as daily. In addition, the permittee shall immediately initiate an investigation of the cause of the AL being exceeded, including inspection of all discharging units and all related pollution control devices, review of any operational and maintenance practices that might have resulted in an unexpected discharge, and hydrologic review of groundwater conditions including upgradient water quality.

3. The permittee shall initiate actions identified in Part 2.6 to resolve any problems identified by the investigation which may have led to an AL being exceeded. To implement any other corrective action the permittee shall obtain prior approval from ADEQ according to Section 2.6.6. Alternatively, the permittee may submit a technical demonstration, subject to written approval by the Water Permits Section, that although an AL is exceeded, pollutants are not reasonably expected to cause a violation of an AQL at the subsurface POC. The demonstration may propose a revised AL or monitoring frequency for approval in writing by the Water Permits Section.

4. Within thirty (30) days after confirmation of an AL being exceeded, the permittee shall submit the laboratory results to the Water Quality Compliance Section, Data Unit along with a summary of the findings of the investigation, the cause of the AL being exceeded, and actions taken to resolve the problem.

5. Upon review of the submitted report, the Department may require additional monitoring, increased frequency of monitoring, amendments to permit conditions or other actions.

6. The increased monitoring required as a result of ALs being exceeded may be reduced to TABLE II, if the results of four sequential sampling events demonstrate that no parameters exceed the AL.

2.6.2.3.3 Alert Levels to Protect Downgradient Users from Pollutants Without Numeric Aquifer Water Quality Standards

Not Applicable

2.6.3 Discharge Limitations (DL) Violations

1. If a DL set in Section 4.0, TABLE I has been violated, the permittee shall conduct verification sampling within 24 hours of becoming aware of a DL violation.

2. If verification sampling confirms that the DL has been violated, the permittee shall immediately investigate to determine the cause of the violation. The investigation shall include the following:

   a. Inspection, testing, and assessment of the current condition of all treatment or pollutant discharge control systems that may have contributed to the violation;

   b. Review of recent process logs, reports, and other operational control information to identify any unusual occurrences;

   The permittee also shall submit a report according to Section 2.7.3, which includes a summary of the findings of the investigation, the cause of the violation, and actions taken to resolve the problem. The permittee shall consider and ADEQ may require corrective action that may include control of the source of discharge, cleanup of affected soil, surface water or groundwater, and mitigation of the impact of pollutants on existing uses of the aquifer. Corrective actions shall either be specifically identified in this permit, included in an ADEQ approved contingency plan, or separately approved according to Section 2.6.6.

3. Upon review of the submitted report, the Department may require additional monitoring, add groundwater monitoring, increase the frequency of monitoring, make amendments to permit conditions, or other actions.

2.6.4 Aquifer Quality Limit (AQL) Violation

1. If an AQL set in Section 4.0, TABLE II has been violated, the permittee shall conduct verification sampling within 5 days of becoming aware of an AQL violation.

2. If verification sampling confirms that the AQL is violated for any parameter, the permittee shall increase the frequency of monitoring to weekly. In addition, the permittee shall immediately initiate an evaluation for the cause of the violation, including inspection of all discharging units and all related pollution control devices, and review of any operational and maintenance practices that might have resulted in unexpected discharge.

   The permittee also shall submit a report according to Section 2.7.3, which includes a summary of the findings of the investigation, the cause of the violation, and actions taken to resolve the problem. The permittee shall consider and ADEQ may require corrective action that may include control of the source of discharge, cleanup of affected soil, surface water or groundwater, and mitigation of the impact of pollutants on existing uses of the aquifer. Corrective actions shall either be specifically identified in this permit, included in an ADEQ approved contingency plan, or separately approved according to Section 2.6.6.

3. Upon review of the submitted report, the Department may require additional monitoring, increased frequency of monitoring, amendments to permit conditions or other actions.

2.6.5 Emergency Response and Contingency Requirements for Spills and Unauthorized Discharges

2.6.5.1 Duty to Respond
The permittee shall act immediately to correct any condition that could pose an endangerment to public health or the environment.

2.6.5.2 Spills of Hazardous or Toxic Materials
In the event of any accidental spill or unauthorized discharge (A.R.S. § 49-201(12)) of suspected hazardous substances (A.R.S. § 49-201(18)) or toxic pollutants (A.R.S. § 49-243(I)) on the facility site, the permittee shall promptly isolate the area and attempt to identify the spilled material. The permittee shall record information, including name, nature of exposure and follow-up medical treatment, if necessary, on persons who may have been exposed during the incident. Spilled materials, absorbents, and contaminated media generated during emergency response shall be removed and disposed of according to applicable federal, state and local regulations. The emergency response coordinator shall notify the ADEQ Emergency Response Unit at (602) 207-2300 immediately upon discovering a release of a hazardous substance in excess of a reportable quantity in accordance with 40 CFR Part 302, et seq.

2.6.5.3 Discharge of Non-hazardous Materials
In the event of any unauthorized discharge of non-hazardous materials from the facility, the permittee shall promptly attempt to cease the discharge and isolate the discharged material. Discharged material shall be removed and the site cleaned up as soon as possible. The permittee shall notify the ADEQ Central Regional Office Water Quality Compliance Unit at 602-207-2300 within 24-hours upon discovering the discharge of non-hazardous material which: a) has the potential to cause an AQL to be exceeded; or b) could pose an endangerment to public health or the environment.

2.6.5.4 Reporting Requirements
The permittee shall submit a written report for any accidental spills or unauthorized discharges described in Sections 2.6.5.2 and 2.6.5.3 to ADEQ Central Regional Office Water Compliance Unit at 602-207-2300 within thirty days of the spill or discharge or as required by subsequent ADEQ action. The report shall summarize the event, including any human exposure, and facility response activities and include all information specified in Section 2.7.3. If a notice is issued by ADEQ subsequent to the spill or discharge notification, any additional information requested in the notice shall also be submitted within the time frame specified in that notice. Upon review of the submitted report, ADEQ may require additional monitoring or corrective actions.

2.6.6 Corrective Actions

The permittee shall obtain written approval from the Water Permits Section prior to implementing a corrective action to accomplish any of the following goals in response to exceeding an AL or violation of an AQL, DL, or other permit condition:

1. Control of the source of an unauthorized discharge;
2. Soil cleanup;
3. Cleanup of affected surface waters;
4. Cleanup of affected parts of the aquifer;
5. Mitigation to limit the impact of pollutants on existing uses of the aquifer.

Within 30 days of completion of any corrective action, the operator shall submit to the ADEQ Water Quality Compliance Section, a written report describing the causes, impacts, and actions taken to resolve the problem.

.7 Reporting and Recordkeeping Requirements
[A.R.S. § 49-243(K)(2) and A.A.C. R18-9-A206(B) and R18-9-A207]

2.7.1 Self Monitoring Report Forms (SMRF)

1. The permittee shall complete the SMRFs provided by ADEQ, and submit them to the Water Quality Compliance Section, Data Unit.
2. The permittee shall complete the SMRF to the extent that the information reported may be entered on the form. If no information is required during a quarter, the permittee shall enter "not required" on the SMRF and submit the report to ADEQ. The permittee shall use the format devised by ADEQ.
3. The tables contained in Sections 4.0 list the parameters to be monitored and the frequency for reporting results for groundwater compliance monitoring. Monitoring methods shall be recorded on the SMRFs.
4. In addition to the SMRF, the information contained in Section 6.9.3 shall be included.

2.7.2 Operation Inspection / Log Book Recordkeeping

A signed copy of this permit shall be maintained at all times at the location where day-to-day decisions regarding the operation of the facility are made. A log book of the inspections and measurements required by this permit shall be maintained at the location where day-to-day decisions are made regarding the operation of the facility. The logbook shall be retained for ten years from the date of each inspection, and upon request, the permit and the logbook shall be made immediately available for review by ADEQ personnel. The information in the log book shall include, but not be limited to, the following information:

1. name of inspector;
2. date and shift inspection was conducted;
3. condition of applicable facility components;
4. any damage or malfunction, and the date and time any repairs were performed;
5. documentation of sampling data and time;
6. names of samples;
7. static water level in monitor well prior to sampling;
8. sampling method;
9. purging volume;
10. indicator parameters including field conductance (μmhos/cm), field temperature (°C), and field pH (standard units);
11. date of analysis;
12. preservation and transportation procedures;
13. the name of the analytical facility, and;
14. any other information as specified by this permit to be entered in the logbook.

2.7.3 Permit Violation and Alert Level Status Reporting

1. The permittee shall notify the Water Quality Compliance Section, Enforcement Unit in writing within five days (except as provided in Section 2.6.4) of becoming aware of a violation of any permit condition, discharge limitation or of an Alert Level being exceeded.
2. The permittee shall submit a written report to the Water Quality Compliance Section, Enforcement Unit within 30 days of becoming aware of the violation of any permit condition or discharge limitation. The report shall document all of the following:
   a. Identification and description of the permit condition for which there has been a violation and a description of its cause.
   b. The period of violation including exact date(s) and time(s), if known, and the anticipated time period during which the violation is expected to continue.
   c. Any corrective action taken or planned to mitigate the effects of the violation, or to eliminate or prevent a recurrence of the violation.
   d. Any monitoring activity or other information which indicates that any pollutants would be reasonably expected to cause a violation of an Aquifer Water Quality Standard.

e. Proposed changes to the monitoring which include changes in constituents or increased frequency of monitoring.
f. Description of any malfunction or failure of pollution control devices or other equipment or processes.

2.7.4 Operational, Other or Miscellaneous Reporting

The permittee shall submit data required in Section 4.0 Table III regardless of the operating status of the facility unless otherwise approved by the Department or allowed in this permit.

2.7.5 Reporting Location

All SMRFs shall be submitted to:
Arizona Department of Environmental Quality
Water Quality Compliance Section, Data Unit
1110 W. Washington
Phoenix, Arizona 85007
Phone (602) 771-4681

All documents required by this permit to be submitted to the Water Quality Compliance Section shall be directed to:
Water Quality Compliance Section, Enforcement Unit
1110 W. Washington
Phoenix, Arizona 85007
Phone (602) 771-4614

All documents required by this permit to be submitted to the Water Permits Section shall be directed to:
Arizona Department of Environmental Quality
Water Permits Section
1110 W. Washington
Phoenix, Arizona 85007
Phone (602) 771-4428

2.7.6 Reporting Deadline

The following table lists the quarterly report due dates:

Monitoring conducted during quarter	Quarterly Report due by the end of the following quarter
January-March	April 30
April-June	July 30
July-September	October 30
October-December	January 30

2.8 Temporary Cessation [A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A209(A)]

The permittee shall give written notice to the Water Quality Compliance Section upon ceasing operation of the facility for a period of 60 days or greater. At the time of notification the permittee shall submit for ADEQ approval a plan for maintenance of discharge control systems and for monitoring during the period of temporary cessation. Immediately following ADEQ's approval, the permittee shall implement the approved plan. If necessary, ADEQ shall amend permit conditions to incorporate conditions to address temporary cessation. If the facility will cease operation for more than three years, the permittee shall submit closure notification, as set forth in Section 2.9 below.

2.9 Closure [A.R.S. §§ 49-243(K)(6), 49-252 and A.A.C. R18-9-A209(B)]

The permittee shall give written notice of closure to the Water Quality Compliance Section before closing, or before ceasing use of a facility addressed under this permit if the cessation is projected to last more than three years.

Within ninety (90) days following notification of closure, the permittee shall submit for approval to the Water Permits Section, a detailed Closure Plan which meets the requirements of A.R.S. § 49-252 and A.A.C. 18-9-A209(B)(1)(a).

If the closure plan achieves clean closure immediately, ADEQ shall issue a letter of approval to the permittee. If the closure plan contains a schedule for bringing the facility to a clean closure configuration at a future date, ADEQ may incorporate any part of the schedule as an amendment to this permit.

Upon completion of closure activities, the permittee shall give written notice to the Water Permits Section indicating that the approved Closure Plan has been implemented fully. If clean closure has been achieved, ADEQ shall issue a letter of approval to the permittee at that time. If any of the following conditions apply, the permittee shall follow the terms of Post Closure stated in this permit:

1. Clean closure cannot be achieved at the time of closure notification or within one year thereafter under a diligent schedule of closure actions;
2. Further action is necessary to keep the facility in compliance with aquifer water quality standards at the applicable point of compliance;
3. Continued action is required to verify that the closure design has eliminated discharge to the extent intended;
4. Remedial or mitigative measures are necessary to achieve compliance with Title 49, Ch. 2;
5. Further action is necessary to meet property use restrictions.

2.9.1 Closure Plan

A specific closure plan is not required at this time.

2.9.2 Closure Completion

Not applicable at this time.

2.10 Post Closure [A.R.S. §§ 49-243(K)(6), 49-252 and A.A.C. R18-9 A209(C)]
Post-closure requirements shall be established based on a review of facility closure actions and will be subject to review and approval by the Water Permits Section.

In the event clean closure cannot be achieved pursuant to A.R.S. § 49-252, the permittee shall submit for approval to the Water Permits Section a Post-Closure Plan that addresses post-closure maintenance and monitoring actions at the facility. The Post-Closure Plan shall meet all requirements of A.R.S. §§ 49-201(29) and 49-252 and A.A.C. R18-9-A209(C). Upon approval of the Post-Closure Plan, this

permit shall be modified or a new permit shall be issued to incorporate all post-closure controls and monitoring activities of the Post-Closure Plan.

2.10.1 Post-Closure Plan

A post-closure plan may be required based on clean closure results

2.10.2 Post-Closure Completion

If a post-closure plan is required, then the facility shall submit a post-closure completion report

3.0 COMPLIANCE SCHEDULE [A.R.S. § 49-243(K)(5) and A.A.C. R18-9-A208]

Not Applicable

4.0 TABLES OF MONITORING REQUIREMENTS

TABLE I
DISCHARGE MONITORING

Sampling Point Number	Identification	Latitude	Longitude
1	Discharge line from UV unit	31° 34 ' 57"	110° 18' 47"

Parameter	Alert Level	Aquifer Quality Limit	Units	Sampling Frequency	Reporting Frequency
Flow (monthly avg.)[1]	1.9	2.0	mgd	Calculated Monthly	Quarterly
Fecal Coliform (single sample)	NL	800	CFU[2]	Daily[3]	"
Fecal Coliform (4 of 7 samples)	NL	200	CFU	Daily	"
Total Nitrogen[4]	8.0[5]	10.0[6]	mg/l	Monthly	Quarterly

Metals (Total):

Parameter	Alert Level	Aquifer Quality Limit	Units	Sampling Frequency	Reporting Frequency
Antimony	0.0048	0.006	mg/l	Quarterly	Quarterly
Arsenic	0.04	0.05	mg/l	Quarterly	Quarterly
Barium	1.60	2.00	mg/l	Quarterly	Quarterly
Beryllium	0.0032	0.004	mg/l	Quarterly	Quarterly
Cadmium	0.008	0.010	mg/l	Quarterly	Quarterly
Chromium	0.08	0.10	mg/l	Quarterly	Quarterly

[1] Flow is calculated monthly using average daily flows.

[2] CFU means colony forming units in a 100 milliliter sample.

[3] "Daily" means every day on which a sample can practicably be obtained and delivered in sufficient time for proper analysis, provided that no less than four samples in each calender week are obtained and analyzed.

[4] Total Nitrogen is equal to Nitrate-Nitrite-N plus TKN.

Cyanide (total)	0.16	0.2	mg/l	Quarterly	Quarterly
Fluoride	3.2	4.0	mg/l	Quarterly	Quarterly
Lead	0.04	0.05	mg/l	Quarterly	Quarterly
Mercury	0.0016	0.002	mg/l	Quarterly	Quarterly
Nickel	0.08	0.1	mg/l	Quarterly	Quarterly
Selenium	0.04	0.05	mg/l	Quarterly	Quarterly
Thallium	0.0016	0.002	mg/l	Quarterly	Quarterly

Volatile & Semi -Volatile Organic Compounds (VOCs & SVOCs):

Parameter	Alert Level	Aquifer Quality Limit	Units	Sampling Frequency	Reporting Frequency
Benzene	0.004	0.005	mg/l	Semi-Annual	Semi-Annual
Benzo(a) pyrene	0.00016	0.0002	mg/l	Semi-Annual	Semi-Annual
Carbon tetrachloride	0.004	0.005	mg/l	Semi-Annual	Semi-Annual
o-Dichlorobenzene	0.48	0.6	mg/l	Semi-Annual	Semi-Annual
para-Dichlorobenzene	0.06	0.075	mg/l	Semi-Annual	Semi-Annual
1,2-Dichloroethane	0.004	0.005	mg/l	Semi-Annual	Semi-Annual
1,1-Dichloroethylene	0.0056	0.007	mg/l	Semi-Annual	Semi-Annual
cis-1,2-Dichloroethylene	0.0056	0.007	mg/l	Semi-Annual	Semi-Annual
trans-1,2-Dichloroethylene	0.08	0.1	mg/l	Semi-Annual	Semi-Annual
1,2-Dichloropropane	0.004	0.005	mg/l	Semi-Annual	Semi-Annual
Dichloromethane	0.004	0.005	mg/l	Semi-Annual	Semi-Annual
Di (2-ethylhexyl) adipate	0.32	0.4	mg/l	Semi-Annual	Semi-Annual
Bis (2-ethylhexyl) pthalate	0.0048	0.006	mg/l	Semi-Annual	Semi-Annual
Ethylbenzene	0.56	0.7	mg/l	Semi-Annual	Semi-Annual
Hexachlorobenzene	0.008	0.001	mg/l	Semi-Annual	Semi-Annual
Hexachlorocyclopentadiene	0.04	0.05	mg/l	Semi-Annual	Semi-Annual
Monochlorobenzene	0.08	0.1	mg/l	Semi-Annual	Semi-Annual
Pentachlorophenol	0.0008	0.001	mg/l	Semi-Annual	Semi-Annual
2,3,7,8-TCDD (Dioxin)	.000000024	0.00000003	mg/l	Semi-Annual	Semi-Annual
Styrene	0.08	0.1	mg/l	Semi-Annual	Semi-Annual
Tetrachloroethylene	0.004	0.005	mg/l	Semi-Annual	Semi-Annual
Toluene	0.08	1	mg/l	Semi-Annual	Semi-Annual
Trihalomethanes (total)	0.08	0.10	mg/l	Semi-Annual	Semi-Annual

Trichloroethylene	0.004	0.005	mg/l	Semi-Annual	Semi-Annual
Vinyl Chloride	0.0016	0.002	mg/l	Semi-Annual	Semi-Annual
Xylenes (Total)	8	10	mg/l	Semi-Annual	Semi-Annual

TABLE II
GROUNDWATER MONITORING

Sampling Point Number	Identification	Latitude	Longitude
1	POC # 1	31°34 ' 50"N	110° 18 ' 45" W
2	POC # 2	31°35 ' 13"N	110° 18 ' 49 " W

Parameter	Alert Level	Aquifer Quality Limit	Units	Sampling Frequency	Reporting Frequency
Total Coliform	Not Applicable	None Detected[7]	CFU/100ml	Quarterly	Quarterly
Fecal Coliform	Not Applicable	None Detected	CFU/100ml	Quarterly	Quarterly
Total Nitrogen[8]	8.0	10.0	mg/l	Quarterly	Quarterly
Nitrate as N	8.0	10.0	mg/l	Quarterly	Quarterly
Nitrate and nitrite (as N)	8.0	10.0	mg/l	Quarterly	Quarterly
Nitrite as N	0.8	1.0	mg/l	Quarterly	Quarterly

[7] Each groundwater sample shall be analyzed for both total and fecal coliforms. A positive total coliform result followed by a negative fecal coliform result shall not be considered an exceedance of the AQL. A positive result for both total coliforms and fecal coliforms in the same sample shall be considered an exceedance of the AQL.

[8] Total Nitrogen is equal to Nitrate-Nitrite-N plus TKN.

TABLE II (Continued)

Metals (Total):

Parameter	Alert Level	Aquifer Quality Limit	Units	Sampling Frequency	Reporting Frequency
Antimony	0.0048	0.006	mg/l	Semi-Annual	Semi-Annual
Arsenic	0.04	0.05	mg/l	Semi-Annual	Semi-Annual
Barium	1.60	2.00	mg/l	Semi-Annual	Semi-Annual
Beryllium	0.0032	0.004	mg/l	Semi-Annual	Semi-Annual
Cadmium	0.008	0.010	mg/l	Semi-Annual	Semi-Annual
Chromium	0.08	0.10	mg/l	Semi-Annual	Semi-Annual
Cyanide (total)	0.16	0.2	mg/l	Semi-Annual	Semi-Annual
Fluoride	3.2	4.0	mg/l	Semi-Annual	Semi-Annual
Lead	0.04	0.05	mg/l	Semi-Annual	Semi-Annual
Mercury	0.0016	0.002	mg/l	Semi-Annual	Semi-Annual
Nickel	0.08	0.1	mg/l	Semi-Annual	Semi-Annual
Selenium	0.04	0.05	mg/l	Semi-Annual	Semi-Annual
Thallium	0.0016	0.002	mg/l	Semi-Annual	Semi-Annual

TABLE II (Continued)
Volatile & Semi -Volatile Organic Compounds (VOCs SVOCs):

Parameter	Alert Level	Aquifer Quality Limit	Units	Sampling Frequency	Reporting Frequency
Benzene	0.004	0.005	mg/l	Semi-Annual	Semi-Annual
Benzo(a) pyrene	0.00016	0.0002	mg/l	Semi-Annual	Semi-Annual
Carbon tetrachloride	0.004	0.005	mg/l	Semi-Annual	Semi-Annual
o-Dichlorobenzene	0.48	0.6	mg/l	Semi-Annual	Semi-Annual
para-Dichlorobenzene	0.06	0.075	mg/l	Semi-Annual	Semi-Annual
1,2-Dichloroethane	0.004	0.005	mg/l	Semi-Annual	Semi-Annual
1,1-Dichloroethylene	0.0056	0.007	mg/l	Semi-Annual	Semi-Annual
cis-1,2-Dichloroethylene	0.0056	0.007	mg/l	Semi-Annual	Semi-Annual
trans-1,2-Dichloroethylene	0.08	0.1	mg/l	Semi-Annual	Semi-Annual
1,2-Dichloropropane	0.004	0.005	mg/l	Semi-Annual	Semi-Annual
Dichloromethane	0.004	0.005	mg/l	Semi-Annual	Semi-Annual
Di (2-ethylhexyl) adipate	0.32	0.4	mg/l	Semi-Annual	Semi-Annual
Bis (2-ethylhexyl) pthalate	0.0048	0.006	mg/l	Semi-Annual	Semi-Annual
Ethylbenzene	0.56	0.7	mg/l	Semi-Annual	Semi-Annual
Hexachlorobenzene	0.008	0.001	mg/l	Semi-Annual	Semi-Annual
Hexachlorocyclopentadiene	0.04	0.05	mg/l	Semi-Annual	Semi-Annual
Monochlorobenzene	0.08	0.1	mg/l	Semi-Annual	Semi-Annual
Pentachlorophenol	0.0008	0.001	mg/l	Semi-Annual	Semi-Annual
2,3,7,8-TCDD (Dioxin)	.000000024	0.00000003	mg/l	Semi-Annual	Semi-Annual
Styrene	0.08	0.1	mg/l	Semi-Annual	Semi-Annual
Tetrachloroethylene	0.004	0.005	mg/l	Semi-Annual	Semi-Annual
Toluene	0.08	1	mg/l	Semi-Annual	Semi-Annual
Trihalomethanes (total)	0.08	0.10	mg/l	Semi-Annual	Semi-Annual
1,2,4-Trichlorobenzene	0.056	0.07	mg/l	Semi-Annual	Semi-Annual
1,1,1-Trichloroethane	0.16	0.20	mg/l	Semi-Annual	Semi-Annual
1,1,2-Trichloroethane	0.004	0.005	mg/l	Semi-Annual	Semi-Annual
Trichloroethylene	0.004	0.005	mg/l	Semi-Annual	Semi-Annual
Vinyl Chloride	0.0016	0.002	mg/l	Semi-Annual	Semi-Annual
Xylenes (Total)	8	10	mg/l	Semi-Annual	Semi-Annual

TABLE III

FACILITY INSPECTION (OPERATIONAL MONITORING)

Parameter	Performance Levels	Inspection Frequency
Pump Integrity	Good Working Condition	Daily
Freeboard in Storage Pond	Three feet	Monthly
WWTP Components	Good Working Condition	Daily

5.0 REFERENCES AND PERTINENT INFORMATION

The terms and conditions set forth in this permit have been developed based upon the information contained in the following, which are on file with the Department:

1 APP Application dated: October 2, 2000

2 Public Notice, dated: May 9, 2001

3 Public Hearing, dated Not Applicable

4 Responsiveness Summary, dated Not Applicable

6.0 GENERAL CONDITIONS AND RESPONSIBILITIES

6.1 **Annual Registration Fees.**
The permittee shall pay an Annual Registration Fee to ADEQ. The Annual Registration Fee is based upon the amount of daily influent or discharge of pollutants in gallons per day as established by A.R.S. § 49-242(D). This fee is payable to ADEQ by January 31, each year.

6.2 **Duty to Comply. [A.R.S. §§ 49-221 through 263]**
The permittee shall comply with all conditions of this permit and all applicable provisions of Title 49, Chapter 2, Articles 1, 2 and 3 of the Arizona Revised Statutes, Title 18, Chapter 9, Articles 1 through 4, and Title 18, Chapter 11, Article 4 of the Arizona Administrative Code. Any permit non-compliance constitutes a violation and is grounds for an enforcement action pursuant to Title 49, Chapter 2, Article 4 or permit modification, suspension, or revocation.

6.3 **Duty to provide information. [A.R.S. §§ 49-243(K)(2) and 49-243(K)(8)]**
The permittee shall furnish to the Director, or an authorized representative, within a time specified, any information which the Director may request to determine whether cause exists for amending or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

6.4 **Severability. [A.R.S. § 49-243(K)(8)]**
The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

6.5 **Proper Operation and Maintenance. [A.R.S. § 49-243(K)(8)]**
The permittee shall, at all times, properly operate and maintain all facilities, treatment processes, and discharge control systems which are installed or used by the permittee to achieve compliance with the terms and conditions of this permit.

6.6 **Compliance with Aquifer Water Quality Standards. [A.R.S. §§ 49-243(B)(2) and 49-243(B)(3)]**
The permittee shall not cause or contribute to a violation of an aquifer water quality standard at the applicable point of compliance for the facility. Where, at the time of issuance of the permit, an aquifer already exceeds an aquifer water quality standard for a pollutant, the permittee shall not discharge that pollutant so as to further degrade, at the applicable point of compliance for the facility, the water quality of any aquifer for that pollutant.

6.7 **Technical and Financial Capability.**
[A.R.S. §§ 49-243(K)(8) and 49-243(N) and A.A.C. R18-9-A202(B) and R18-9-A203(E) and (F)]
The permittee shall have and maintain the technical and financial capability necessary to fully carry out the terms and conditions of this permit. Any bond, insurance policy, trust fund, or other financial assurance mechanism provided as a demonstration of financial capability in the permit application, pursuant to A.A.C. R18-9-A203(D), shall be in effect prior to any discharge authorized by this permit and shall remain in effect for the duration of the permit.

6.8 **Reporting of Bankruptcy or Environmental Enforcement. [A.A.C. R18-9-A207(C)]**
The permittee shall notify the Director within five days after the occurrence of any one of the following:
1. The filing of bankruptcy by the permittee.
2. The entry of any order or judgment not issued by the Director against the permittee for the enforcement of any environmental protection statute or rule.

6.9 **Monitoring and Records.** [A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A206]

6.13.1 **Permit Reopen.**
The Director may reopen this permit and amend it pursuant to A.A.C. R18-9-A211.

6.13.2 **Permit Transfer.**
This permit may not be transferred to any other person except after notice to and approval of the transfer by the Department. No transfer will be approved until the applicant complies with all transfer requirements as specified in A.A.C. R18-9-A212(B) and (C).

The permittee shall notify the Water Permits Section in writing within 15 days after any change in the owner or operator of the facility. The notification shall state the permit number, the name of the facility, the date of property transfer, and the name, address, and phone number where the new owner or operator can be reached. The operator shall advise the new owner or operators of the terms of this permit and the need for permit transfer in accordance with the rules.

The permittee shall conduct any monitoring activity necessary to assure compliance with this permit, with the applicable water quality standards established pursuant to A.R.S. §§ 49-221 and 49-223 and §§ 49-241 through 49-252.

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
2. The permittee shall retain records of all monitoring information, including copies of all reports required by this permit and records of all data used to complete the application for this permit, for a period of 10 years from the date of the sample, measurement report, or application. This period may be extended by request of the Director at any time.
3. At a minimum, records of monitoring information shall include:
   a. The date, time, and exact place of sampling or measurements
   b. The individual(s) who performed the sampling or measurements
   c. The date(s) analyses were performed
   d. The individual(s) who performed the analyses
   e. The analytical techniques or methods used
   f. The results of such analyses
   g. The chain of custody records, and
   h. Any field notes relating to the information described in (a) - (g) above.

6.10 Other information. [A.R.S. § 49-243(K)(8)]

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, the permittee shall promptly submit the correct facts or information.

6.11 Inspection and Entry. [A.R.S. §§ 49-203(B) and 49-243(K)(8)]

The permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to enter and inspect the facility as reasonably necessary to ensure compliance with Title 49, Chapter 2, Article 3 of the Arizona Revised Statutes, and Title 18, Chapter 9, Articles 1 through 4 of the Arizona Administrative Code and the terms and conditions of this permit. In so doing, the Department representative may:

1. Enter upon the operator's premises where a regulated facility or activity is located or conducted, or locations where records must be kept under the conditions of this permit.
2. Have access to and copy, at reasonable times, any records required to be kept under the conditions of this permit.
3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit.
4. Sample or monitor at reasonable times, for the purposes of assuring permit compliance, any substances or parameters at any location.
5. Take photographs or video tape.
6. Take other actions reasonably necessary to determine compliance with Aquifer Protection Permit statutes or rules or the terms and conditions of this permit.

6.12 Duty to Modify. [A.R.S. § 49-243(K)(8)]

The permittee shall apply for and receive a written amendment before deviating from any of the designs or operational practices authorized by this permit.

6.13 Permit Action: Amendment, Transfer, Suspension & Revocation.
[A.R.S. §§ 49-201, 49-241 through 251, A.A.C. R18-9-A211, R18-9-A212 and R18-9-A213]

This permit may be amended, transferred, renewed. or revoked for cause, under the rules of the Department. The filing of a request by the permittee for a permit action does not stay or suspend the effectiveness of any existing permit condition. The Director shall issue a public notice of all proposed permit actions pursuant to A.A.C. R18-9-A211, R18-9-A212 and R18-9-A213.